



**Term 1**

**Unit Overview: KS1 Science**

**Everyday Materials**

<p><u>National Curriculum Objectives</u></p> <ul style="list-style-type: none"> <li>❖ Distinguish between an object and the material from which it is made.</li> <li>❖ Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</li> <li>❖ Describe the simple physical properties of a variety of everyday materials.</li> <li>❖ Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p><u>Substantive knowledge</u></p> <ul style="list-style-type: none"> <li>❖ All objects are made of one or more materials.</li> <li>❖ Some objects can be made from different materials e.g. plastic, metal or wooden spoons.</li> <li>❖ Materials can be described by their properties e.g. shiny, stretchy, rough etc.</li> <li>❖ Some materials e.g. plastic can be in different forms with very different properties.</li> </ul>	<p><u>Vocabulary</u></p> <p>Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card, cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through</p> <p><u>Phonics / polysyllabic words</u></p> <ul style="list-style-type: none"> <li>❖ Break/tear</li> <li>❖ Material</li> <li>❖ Elastic</li> </ul>
<p><u>Working Scientifically Skills</u></p> <ul style="list-style-type: none"> <li>❖ Asking simple questions and recognising that they can be answered in different ways</li> <li>❖ Performing simple tests</li> <li>❖ Identifying and classifying</li> <li>❖ Using their observations and ideas to suggest answers to questions</li> <li>❖ Gathering and recording data to help in answering questions.</li> </ul>	<p><u>Disciplinary knowledge</u></p> <ul style="list-style-type: none"> <li>❖ Distinguish between an object and the material from which it is made.</li> <li>❖ Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</li> <li>❖ Describe the simple physical properties of a variety of everyday materials.</li> <li>❖ Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> </ul>	<p><u>Reading support</u></p> <ul style="list-style-type: none"> <li>❖ Word mats</li> <li>❖ Scaffolded recording / choice of recording</li> <li>❖ Pre teaching of vocab</li> </ul> <p><u>Extension: deeper thinking</u></p> <ul style="list-style-type: none"> <li>❖ Use their knowledge and understanding of materials to sort materials according to their properties.</li> <li>❖ Explain why some materials are particularly suited to specific purposes, e.g. glass for windows.</li> </ul>
<p><u>Possible misconceptions</u></p> <ul style="list-style-type: none"> <li>❖ Only fabrics are materials</li> <li>❖ Only building materials are materials</li> <li>❖ Only writing materials are materials</li> <li>❖ The word 'rock' describes an object rather than a material</li> <li>❖ 'solid' is another word for hard.</li> </ul>	<p><u>British Values</u></p> <ul style="list-style-type: none"> <li>❖ <u>Democracy</u> Take the views and opinions of others into account. Take turns and instructions from others.</li> <li>❖ <u>The rule of law</u> Understand the importance of safety rules when working scientifically make choices when planning an investigation as others may have different points of view as to where to start.</li> </ul>	<p><u>Key People</u></p> <p>Dr Alison Parker, Dr Parvez Alam, Dr Raquel Prado</p> <p><u>Christian Values</u></p> <ul style="list-style-type: none"> <li>❖ <u>Courage</u> Asking our own questions and investigating new ideas.</li> <li>❖ <u>Respect</u></li> </ul>



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<p><u>Prior learning</u></p> <ul style="list-style-type: none"><li>❖ Use all their senses in hands-on exploration of natural materials. (Nursery - Materials, including changing materials)</li><li>❖ Explore collections of materials with similar and/or different properties. (Nursery - Materials, including changing materials.</li></ul> <p>Talk about the differences between materials and changes they notice. (Nursery - Materials, including changing materials)</p> <p><u>Future learning</u></p> <ul style="list-style-type: none"><li>❖ Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of everyday materials)</li><li>❖ Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Uses of everyday materials)</li></ul>	<ul style="list-style-type: none"><li>❖ <u>Tolerance</u> Scientific discoveries have come from other cultures and religious beliefs often compete with scientific understanding.</li><li>❖ <u>Mutual respect</u> Work as a team, discuss findings and Offer support and advice to others.</li></ul>	<p>Supporting other's ideas, even if they differ to our own.</p> <ul style="list-style-type: none"><li>❖ <u>Trust</u> Celebrating everyone's unique ideas and working together collaboratively.</li></ul>
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